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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,447	06/21/2001	Michael Albert Haase	56033USA9A.002	5768
32692	7590	10/29/2003	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			LEURIG, SHARLENE L	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	

2879

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,447

Applicant(s)

HAASE ET AL.

Examiner

Sharlene Leurig

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-29 is/are allowed.
- 6) ☒ Claim(s) 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on September 26, 2003 has been entered and acknowledged by the Examiner. Claims 1-22 and 33-37 have been cancelled and claims 23, 27 and 30 have been amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. (5,294,869) (of record).

Regarding claim 30, Tang discloses an organic light emitting color display panel comprising a plurality of full color pixels formed on a substrate, each full color pixel comprising a red, a green, and a blue subpixel (column 13, lines 22-31), an integrated shadow mask for forming the full color pixels, comprising a plurality of ribs (Figure 11, element 303) erected on the substrate, wherein the pitch of the ribs is smaller than the pitch of the pixels, and wherein the pitch of the ribs corrects for parallax in an angle deposition process.

For each pixel there are several ribs, where the pixel is the unit comprising the three sub-pixels illustrated in Figures 11-14; therefore the pitch of the ribs is smaller than the pitch of the pixels.

Though Tang is silent on the parallax correction of the integrated shadow mask, it teaches a structure that provides parallax correction. In depositing the electroluminescent layers, the source of the EL medium is positioned so the ribs are interposed between the source and the sub-pixels in order to achieve the desired deposition (column 3, lines 1-15; column 6, lines 40-59). This result is achieved by arranging the ribs on the substrate so that the pitch of the ribs is smaller than the pitch of the pixels.

Furthermore, the integrated shadow mask corrects for parallax in an angle deposition process, since the walls of the mask (Figure 11, element 303) are of a height that exceeds the thickness of the EL layer and "are capable of shadowing an adjacent sub-pixel area" (column 2, lines 33-37) and are interposed between the source of the EL medium and the adjacent sub-pixel (column 6, lines 50-55), which prevents EL material from being deposited in the wrong sub-pixel and requiring removal (column 6, lines 40-44).

The process of depositing the EL medium can be considered an "angle deposition process" because the deposition source is at an angle to the substrate, as shown in Figure 2.

Although the Tang reference is silent on angle evaporation process the Examiner notes that the claim limitation of the OEL medium being obtained by means of an angle

evaporation process is drawn to a process of manufacturing, which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be differentiated from the prior art by a process limitation. Consequently, absent a showing of a difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

Regarding claim 31, the mask comprises a photoresist (column 5, lines 62-65).

Regarding claim 32, the photoresist is a dry film photoresist (column 6, lines 5-9).

Allowable Subject Matter

4. Claims 23-29 are allowed.
5. The following is an examiner's statement of reasons for allowance: the Examiner notes that the Prior Art of Record fails to teach or suggest the combination of limitations as set forth in claim 23, and specifically comprising the limitation of a blue dopant deposited in a red or green subpixel of a display, where the blue dopant is deposited in the same host layer as the red or green dopant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

6. Applicant's arguments, see Amendment, filed September 26, 2003, with respect to claims 23-29 have been fully considered and are persuasive. The rejection of claims 23-29 has been withdrawn.

7. Applicant's arguments, filed September 26, 2003, with respect to claims 30-32, have been fully considered but they are not persuasive. The applicant argued that amended claim 30 and its dependents are allowable over Tang et al. (5,294,869) because Tang is silent on the issue of parallax correction. While the examiner agrees that Tang is silent on parallax, the examiner maintains that the Tang reference teaches a structure that provides for parallax correction as claimed. The claim recites the structural limitation of an integrated shadow mask having a plurality of ribs whose pitch is smaller than the pitch of the pixels. Tang meets these limitations, as shown in Figures 11-14.

The applicant argued that the arrangement of ribs in the Tang reference is only for dividing the pixels and deposition of separate cathodes. The examiner disagrees and maintains that Tang teaches the shadowing effect of these ribs (column 2, lines 33-37) and how the ribs prevent the EL medium from being deposited in adjacent sub-pixels (column 6, lines 48-58), not only their effectiveness in the deposition of a cathode or in defining sub-pixels. Therefore Tang teaches a structure that provides for parallax correction as claimed.

The applicant argued that Tang does not disclose an angle evaporation process for a large-format display, the non-collimated flux of the OEL medium during deposition,

or differing angles of deposition, all of which are limitations directed toward a method of manufacture, and which are not represented in the structure as claimed.

Therefore the rejection of claims 30-32 under Tang et al. (5,294,869) is maintained.

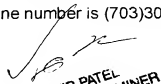
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (703)305-4745. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Sharlene Leurig



VIP PATEL
PRIMARY EXAMINER